

## CLAIMS:

- 1                   1.       Head restraint positioning mechanism (1) for the positioning  
2 of a head restraint (2) of a vehicle seat (33) particularly in case of a rear-end impact  
3 to the vehicle with at least  
4               -       an impact device (6) that has a dynamic connection to the head  
5                   restraint and that is essentially arranged on a seat back (9) of the  
6                   vehicle seat in the area of a pelvis (7) of a passenger (8) sitting on the  
7                   vehicle seat (3);  
8       characterised in that  
9       the impact device (6) presents at least one constructional unit (10) with  
10       pressure-induced length variation and in that a corresponding length  
11       variation of the impact device (6) is convertible into a positioning of the head  
12       restraint (2) through the dynamic connection with the head restraint.
  
- 1                   2.       Head restraint positioning device according to Claim 1,  
2 characterised in that the dynamic connection between the impact device (6) and head  
3 restraint (2) presents at least one guide sleeve (3) for a head restraint rod (4).
  
- 1                   3.       Head restraint positioning device according to Claim 1 or 2,  
2 characterised in that the dynamic connection between the impact device (6) and head  
3 restraint (2) presents at least one holding device (5) particularly for a guide sleeve  
4 (3).
  
- 1                   4.       Head restraint positioning device according to one of the  
2 previous Claims, characterised in that a connection element (11), particularly bar-  
3 shaped, is arranged between the impact device (6) and holding device (5).
  
- 1                   5.       Head restraint positioning device according to one of the  
2 previous Claims, characterised in that the constructional unit (10) is formed as an  
3 impact panel (12) with a curvature, particularly convex in the direction of the  
4 passenger (8).

1                   6.     Head restraint positioning device according to Claim 5,  
2 characterised in that the impact panel (12) is formed with decreasing width (13) in  
3 the direction of the connection element (11).

1                   7.     Head restraint positioning device according to one of the  
2 previous Claims, characterised in that the impact panel (12) presents a connection  
3 device (15) for the pivoting connection to the connection element (11) at least on its  
4 upper end (14).

1                   8.     Head restraint positioning device according to one of the  
2 previous Claims, characterised in that the connection element (11) is formed as a flat  
3 profile.

1                   9.     Head restraint positioning device according to one of the  
2 previous Claims, characterised in that the connection element (11) presents pivoting  
3 connection devices (19) on its upper and/or lower end (17, 18) for mounting,  
4 particularly detachable, to the connecting device (15) of the impact panel (12) and  
5 to the end (20) of the holding device (5) pointing to the connection element (11).

1                   10.    Head restraint positioning device according to one of the  
2 previous Claims, characterised in that the pivoting connection device (19) is formed  
3 by clip connection elements (21).

1                   11.    Head restraint positioning device according to one of the  
2 previous Claims, characterised in that the clip connection element (21) presents at  
3 least one bearing shell (22, 23, 24) formed with an essentially semi-circular cross-  
4 section.

1                   12.    Head restraint positioning device according to one of the  
2 previous Claims, characterised in that the connection element (11) presents a  
3 number of bore holes (25), particularly running diagonally to its length (39).

1                   13.    Head restraint positioning device according to one of the  
2 previous Claims, characterised in that the impact device (6) is held on its lower end  
3 (26) on a pivot shaft (27) for a pivoting connection.

1                   14.    Head restraint positioning device according to one of the  
2 previous Claims, characterised in that the holding device (5) presents at least one  
3 sleeve retainer (28, 29) for retention, particularly anti-twisting, of the guide sleeve  
4 (3).

1                   15.    Head restraint positioning device according to one of the  
2 previous Claims, characterised in that two sleeve retainers (28, 29) are essentially  
3 arranged on the side ends (30, 31) of the holding device (5).

1                   16.    Head restraint positioning device according to one of the  
2 previous Claims, characterised in that the guide sleeve (3) is put into the sleeve  
3 retainer (28, 29) and is held there either in a frictionally engaged, non-positive or  
4 interlocking manner.

1                   17.    Head restraint positioning device according to one of the  
2 previous Claims, characterised in that the guide sleeve (3) and sleeve retainer (28,  
3 29) present an anti-twisting cross-section.

1                   18.    Head restraint positioning device according to one of the  
2 previous Claims, characterised in that the guide sleeve (3) can be locked or clipped  
3 with or in the sleeve retainer (28, 29).

1                   19.    Head restraint positioning device according to one of the  
2 previous Claims, characterised in that the guide sleeve (3) is formed for the sliding  
3 support of the head restraint rod (4).

1                   20.    Head restraint positioning device according to one of the  
2 previous Claims, characterised in that the head restraint positioning device (1) is  
3 mounted on the frame (32) of the vehicle seat (33), particularly in a detachable way.

1                    21.    Head restraint positioning device according to one of the  
2 previous Claims, characterised in that the head restraint positioning device is  
3 mounted on a supporting device (34) that can be mounted to the frame (32) of the  
4 vehicle seat (33), particularly in a detachable way.

1                    22.    Head restraint positioning device according to one of the  
2 previous Claims, characterised in that a link guide (35) is formed between the guide  
3 sleeve (3) and vehicle seat (33).

1                    23.    Head restraint positioning device according to Claim 20,  
2 characterised in that at least one guide element (36) sticks out from the guide sleeve  
3 (3) as a link guide, which guide element (36) engages with a corresponding guide  
4 on the vehicle seat (33) and particularly on its frame (32).

1                    24.    Head restraint positioning device according to one of the  
2 previous Claims, characterised in that on the frame (32) of the vehicle seat (33), a  
3 retaining sleeve (37) is arranged for at least partial retention of the guide sleeve (3),  
4 whereby the link guide (35) is formed between the retaining sleeve (37) and the  
5 guide sleeve (3).

1                    25.    Head restraint positioning device according to one of the  
2 previous Claims, characterised in that at least the constructional unit (10), with  
3 pressure-induced length variation, of the impact device (6) is formed from an  
4 elastically workable material.

1                    26.    Head restraint positioning device according to one of the  
2 previous Claims, characterised in that the impact device (6) presents a clip-on shaft  
3 (38) on its upper end (14) for the lower end (18) of the connection element (11).